



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,691	11/01/2000	Seste Dell' Aera	679P01US	9894

7590 02/18/2004

Shapiro Cohen
Station D
P. O. Box 3440
Ottawa, ON K1P 6P1
CANADA

EXAMINER

LY, NGHI H

ART UNIT	PAPER NUMBER
----------	--------------

2686

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/702,691

Applicant(s)

DELL' AERA, SESTE

Examiner

Nghi H. Ly

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 17-20, 23-25, 27, 30 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Sunter et al (US 6,396,889).

Regarding claims 17, 23, and 27, Sunter teaches a method of calibrating a radio having a frequency source which reproduces a first signal having a first frequency by multiplying a second signal having an original frequency by a multiplier value (see fig.5, the multiplexer 34 with two inputs 14 and 42), the method comprising:

a) determining the original frequency (see fig.5, connection 14 for the Clock Source),

b) utilizing the original frequency to determine a corrected multiplier value (see fig.5, the connection 42 and multiplexer),

c) producing an output signal having an output frequency approximately equal to a desired frequency by adjusting the multiplier value to the corrected multiplier value (see the output from Frequency Measurement 38, and see fig.5, the feedback from the Digital Result to the controller 32 for controlling the controller 32).

Regarding claim 18, Sunter teaches the step a) further includes the steps of: a1) measuring the first frequency (see fig.5, Frequency Measurement 38 and the output 41), a2) dividing the first frequency by the multiplier value to obtain the original frequency (see fig.5, the multiplexer 34 and two inputs 14 and 42).

Regarding claim 19, Sunter further teaches the step b) the dividing the desired frequency by the original frequency to obtain the corrected multiplier value (see column 12, lines 22-30 and see fig.15).

Regarding claim 20, Sunter further teaches including the step of storing the original frequency in storage means (see column 6, lines 53-55).

Regarding claim 24, Sunter further teaches the step ab) further includes a step chosen from the group comprising:

ab1) incrementing the multiplier value by a preprogrammed value to obtain the corrected multiplier value if the preliminary frequency is lesser than the desired frequency (see fig.5, the output 42 of the controller 32 is used to control the multiplexer 34 so that the output could be maintained at a desirable level. Therefore, the teaching of Sunter inherently teaches Applicant's claimed limitation),

ab2) decrementing the multiplier value by a preprogrammed value to obtain the corrected multiplier value if the preliminary frequency is greater than the desired frequency (see fig.5, the output 42 of the controller 32 is used to control the multiplexer 34 so that the output could be maintained at a desirable level. Therefore, the teaching of Sunter inherently teaches Applicant's claimed limitation),

ab3) utilizing the multiplier value as the corrected multiplier value if the preliminary frequency is approximately equal to the desired frequency (see fig.5, the output 42 of the controller 32 is used to control the multiplexer 34 so that the output could be maintained at a desirable level. Therefore, the teaching of Sunter inherently teaches Applicant's claimed limitation).

Regarding claim 25, Sunter further teaches the step of obtaining the original frequency by dividing the final frequency by the corrected multiplier value (see fig.5, divider 23).

Regarding claim 30, Sunter further teaches the frequency source, the controller, and the frequency measurement device are implemented on a single application specific integrated circuit (column 1, lines 41-47 and column 4, lines 10-28, see *"integrated circuits"*).

Regarding claim 32, Sunter further teaches the frequency measurement device is connected at the output of the frequency source to measure the output frequency of the signal (see fig.5, the PLL Output is measured by the Frequency Measurement 38).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21, 22, 26, 28, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sunter et al (US 6,396,889).

Regarding claims 21, 22, 26, 28, 29 and 31, Sunter teaches claims 17, 23 and 27, *instead of* the first frequency is generated using a high resolution frequency synthesizer *or* the second signal is provided by a crystal oscillating at the original frequency *or* the frequency source is chosen from the group comprising: a high resolution frequency synthesizer (a radio) *or* the controller is chosen from the group comprising: a general purpose multiprocessor (a microcontroller, a general purpose personal computer) *or* storing the input frequency *or* storing the value of the original frequency in a storage means.

However, using the first frequency is generated using a high resolution frequency synthesizer *or* the second signal is provided by a crystal oscillating at the original frequency *or* the frequency source is chosen from the group comprising: a high resolution frequency synthesizer (a radio) *or* the controller is chosen from the group comprising: a general purpose multiprocessor (a microcontroller, a general purpose personal computer) *or* storing the input frequency *or* storing the value of the original frequency in a storage means is known in the art.

Therefore, it would have been obvious to one of the ordinary skill in the art to modify the above teaching of Sunter as claimed, in order to improve the first frequency is generated using a high resolution frequency synthesizer *or* the second signal is provided by a crystal oscillating at the original frequency *or* the frequency source is chosen from the group comprising: a high resolution frequency synthesizer (a radio) *or*

Art Unit: 2686

the controller is chosen from the group comprising: a general purpose multiprocessor (a microcontroller, a general purpose personal computer) or storing the input frequency or storing the value of the original frequency in a storage mean is known in the art.

Response to Arguments

5. Applicant's arguments with respect to claims 17-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (703) 605-5164. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Application/Control Number: 09/702,691

Page 7

Art Unit: 2686

you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

llc
02/10/04

Marsha D. Banks-Harold
MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600